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Jespersen's Cycle and the Expansion of Periphrastic *do* in English[1]

Yoko Iyeiri

1. Introduction

2017 celebrates the centenary of the publication of Jespersen's *Negation in English and Other Languages* (1917). Despite the passage of one hundred years, some of its claims still incite debates in the field of negation in English and other languages. Jespersen's Cycle, so named by Dahl (1979) and other later scholars,[2] is one such topic. This is a framework which is applicable to the historical development of negative constructions particularly, though not exclusively, in some European languages.[3]

Jespersen's (1917: 9-11) description of the development of English negative constructions runs as follows: (i) *ic ne secge* (*ne* alone), (ii) *I ne seye not* (the form *ne* ...

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[1] This paper was submitted for publication in November 2017. The work reported here was in part supported by JSPS Kakenhi (Grant Number 26370562). The theoretical framework of this paper was presented orally at the 34th Conference of the English Linguistic Society of Japan, 13 November 2016, Kanazawa University, Japan. Also, part of this paper is a development of Iyeiri (2010), whose focus and methodology are, however, entirely different from those in this paper. Iyeiri (2010) is a study on negation in the Lampeter Corpus, which includes a short discussion on periphrastic *do* in one of its sections, and which is mainly concerned with synchronic variation, particularly genre differences. The present study stresses the diachronic aspect of the expansion of *do* in relation to Jespersen's Cycle.

[2] Dahl (1979: 88) is known to have given this appellation to the historical cycle of negation as described by Jespersen (1917: 9-11). Although a number of scholars have pointed out that Jespersen is not the first to note the cycle named Jespersen's Cycle, I will use this term throughout this paper as it is widely used. van der Auwera & Vossen (2016: 190) summarize some important features of Jespersen's Cycle. The first of their list states that Meillet (1912) is an "important earlier" study on Jespersen's Cycle than Jespersen (1917).

[3] For the applicability of this model to versatile languages in the world, see Hoeksema (2009: 16) and van der Auwera & Vossen (2016) among many others. See also Note 10.

not), (iii) *I say not* (*not* alone), (iv) *I do not say* (*do not*), and (v) *I don't say* (the contracted form *don't*). The employment of the negative adverb *ne* before the finite verb (stage i) was typical of Old English, which came to be strengthened by the addition of *not*, resulting in *ne ... not* (stage ii). This form, which is considered to be typical of Middle English, then undergoes the loss of *ne*, yielding the negative adverb *not* alone (stage iii).[4] Jespersen notes that English reached the stage of *not* alone due to the practical disappearance of *ne* in the fifteenth century.[5]

This Middle English part seems to be the climax of the historical development of English negation in relation to Jespersen's Cycle and is frequently discussed in previous studies. However, the historical path of the development of English negation still continues thereafter. Jespersen refers to the introduction of periphrastic *do* (stage iv) and the subsequent occurrence of its contraction (stage v).[6] He mentions the convenience facilitated by periphrastic *do*, which allows the subject to be followed by the verb even in interrogative sentences (see Jespersen 1917: 10-11). The interest of the present paper lies in the continuity between the Middle English development of negative constructions and the development of *do* in later English.

As mentioned above, Jespersen's Cycle is a term used by later scholars and not by Jespersen himself. Hence, the definition of the term differs depending on the researcher.

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[4] While *ne... not* is often considered to be typical of Middle English, it is attested from later Old English onwards (Strang 1970: 312). Furthermore, it is not as frequent as one would expect in Middle English. Iyeiri (2001: 23-31) demonstrates that *ne ... not* is quite unstable throughout the Middle English period and that in late Middle English, where *not* alone is already the major form of negation, *ne* alone rather than *ne ... not* is more commonly attested. It is probable that *ne ... not* is simply a transitional form between *ne* alone and *not* alone, at least in the history of English negation.

[5] This does not mean that the form with *not* alone appears only in the fifteenth century. As Iyeiri (2001: 23-31) shows, *not* alone occurs, though marginally, even in earlier Middle English. It is more accurate to state that the practical disappearance of *ne* made *not* alone the major form of negation in the fifteenth century.

[6] While the dramatic expansion of periphrastic *do* is observed in the Early Modern English period, its attestation goes back to the early Middle English period (see Mustanoja 1960: 603; Rissanen 1999: 239; among many others), or even to the Old English period (cf. Tieken 1990; Ogura 2003).

Some envisage the entire process from stage i to stage v under Jespersen's Cycle, while others, including Dahl (1979), prefer to focus on the first three stages, which are commonly observed in a number of different languages, when using the same term. Also, the emphasis in the use of this term differs in different studies. Breitbarth et al. (2013: 141), for whom the cycle involves the development of periphrastic *do*, consider that the cycle comes to completion when the negative marker comes back to the preverbal position by the introduction of *do*.[7] Nevalainen (2006: 259) regards Jespersen's Cycle as a cycle from "one negator to a two-part one and back to one again".

In the present paper, I will discuss the entire process from stage i to stage v within the framework of Jespersen's Cycle, although in practice stages iv and v are dealt with together as *do not V* in later discussion. I will call the shift from *ne* to *ne ... not*, and then to *not* the Middle English part of the cycle, and the shift from *V not* to *do not V* (which hereafter includes *doth not V*, *do(e)s not V* and *did not V*) the Modern English part of the cycle in this paper. I understand that the Middle English part of Jespersen's Cycle is often regarded as the cycle in a narrow sense, but this should not hinder the discussion of *do not V* and *don't V* from the perspective of the cycle of negative constructions. In the end, the development of *do not V* and *don't V* is the next stage after *V not*, and discussed in sequence by Jespersen himself. No definitions should be judged to be wrong, as they are to serve simply as the starting point of discussion. This is what a "definition" means.

I find the Modern English part of Jespersen's Cycle as interesting as the Middle English part, which is most frequently discussed in previous studies. In fact, the historical development of periphrastic *do* itself is a major topic in historical studies of English, for which there exist a number of previous studies, though not necessarily linked to the Middle English development of English negation. Existing studies focus either on the origin of *do* or the spread or establishment ("regulation" in Ellegård's

[7] This is the most typical word order change in Jespersen's Cycle, but not the sole one. See van der Auwera & Vossen (2016).

(1953) term) of *do*, but not so much on its relationship to the cyclical development of English negation.[8] The discussion below will shed light on the development of periphrastic *do*, an oft-treated issue in the history of English, within the framework of the entire history of English negation.

The organization of this paper is as follows. Section 2 gives a short summary of some relatively recent studies on Jespersen's Cycle. Given the abundance of previous studies, the discussion in this section has to be selective. Section 3, which describes the data used in this study, is followed by Section 4, which shows the overall relationship between *V not* and *do not V* to see the validity of the data under scrutiny. On the basis of these sections, Section 5 adduces a probable interpretation of Jespersen's Cycle, which will be tested by utilizing the data in Sections 6 and 7. Section 8 concludes the present paper.

2. Some recent studies discussing Jespersen's Cycle

As mentioned in the Introduction, Jespersen's Cycle attracts scholarly attention even after the passage of 100 years. Although most existing studies discuss the Middle English part of the cycle rather than the Modern English part, which is the principal concern of the present study, their arguments are relevant to this paper and therefore merit attention here. They tend to centre on the processes of the introduction of *not* and the deletion of *ne*, about which Jespersen argues:

[8] There are simply too numerous previous studies on the origin and the establishment (or the regulation) of periphrastic *do* and it is practically impossible to make a full survey of them in this study, which intends to deal with the third aspect of periphrastic *do*, namely its relationship to the cycle of negation. It is worth mentioning, however, that the origin of periphrastic *do* is much disputed in previous studies, where various uses of *do*, e.g. vicarious, causative, emphatic, anticipatory, and habitual, have been considered as probable origins. Furthermore, language contact has often been considered as an external factor relevant to the development of *do*. For a neat summary of previous studies, see Rissanen (1999: 239-240) and Garrett (1998: 283-291).

> … the original negative adverb is *first weakened*, then found insufficient *and therefore strengthened*, generally through some additional word, and this in turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word (Jespersen 1917: 4).[9]

The repetition of the weakening followed by strengthening is the essence of the cycle, according to him.

A number of studies have, however, cast doubt on the preliminary weakening of *ne* before the introduction of *not*, though the implications of the weakening of *ne* seem to be various. Hansen (2011: 574), for example, maintains that the phonetic weakening of *ne* is not a particularly noticeable feature to begin with. van der Auwera (2009) also wonders if the weakening of *ne* was indeed the trigger for the shift of negative forms, though for him the weakening of *ne* is more semantic. He maintains that the weakening of *ne* is rather a consequence of the introduction of *not* for emphasis. He continues that the form *ne … not*, which is originally emphatic, becomes neutral due to the grammaticalization of *not*, and that this leads to the next stage, where *ne* experiences semantic weakening followed by its eventual loss.[10] In other words, the order of weakening and strengthening differs in these studies from that originally proposed by Jespersen.

Breitbarth et al. (2013: 154) overview some recent studies on Jespersen's Cycle and make a succinct summary as quoted below:

> Jespersen's original approach has recently been followed by Abraham (1999, 2003), according to whom it is the weakening of the preverbal marker that creates the

[9] Throughout this paper, emphasis in the citations is mine.

[10] van der Auwera explains this framework by referring to *ne* and *pas* in French. See also Schwenter (2006: 328), who after mentioning some languages, remarks: "it is, I believe, fair to say that the paradigm case of Jespersen's Cycle, and definitely the one that has been repeated most often in the literature, is that of French".

> need to create an emphasizer. This can be called a pull-chain approach. Approaches like that of Detges & Waltereit (2002), in which grammaticalization of a new phrasal negator weakens the old preverbal marker, ultimately making it superfluous, can be called push-chain approaches.

They then introduce Wallage's view that the cycle is a combination of a pull-chain, which explains the introduction of *not*, and a push-chain, which is behind the loss of *ne*.

Wallage (2008, 2012) indeed discusses the introduction of *not* and the reduction of *ne* in the form of two stages. As for the second stage, he considers that the grammaticalization of *not* leads to the alteration of the nature of *ne*. He considers that Middle English texts yield *ne* of two different types: *ne* of stage one, namely *ne* before the grammaticalization of *not*, holds a full negative value, while *ne* of stage two, namely *ne* after the grammaticalization of *not*, has lost its negative value and therefore has to occur with other negatives. See also Breitbarth (2009), where she introduces her own view on Jespersen's Cycle. Her proposal is similar to Wallage's, in that she regards the shift from *ne* to *ne* ... *not* and *ne* ... *not* to *not* as two separate changes.

Thus, Jespersen's contention that the weakening of *ne* led to the introduction of *ne* ... *not* is much disputed. In my view, however, differences among different arguments are, in a way, more conceptual than real. I admit the importance of conceptual or theoretical interpretations, but when the focus is placed on the actual linguistic environment, a slightly different view emerges. In practice, it is impossible to wait for all examples of *ne* to be weakened before the occurrence of *ne* ... *not* or for all examples of *not* to be neutralized by grammaticalization before the loss of *ne*. The essence involved in the cycle of negative constructions may simply be the simultaneous existence of both weaker and stronger forms of negation. I do not necessarily support the weakening of *ne* before the introduction of *ne* ... *not*, but it is quite possible that it was relatively weak, at least in comparison to other forms of negation. van der Auwera (2009: 52), in fact, notes that "the simple expression [*ne* alone in the case of English] is not exactly 'too

weak', but it is at least 'weaker' (i.e. weaker than the doubling expression)". I would argue that this was the case even from the Old English period, when *ne ... not* was barely available, since other negative constructions such as *ne + never*, *ne + no* were commonly attested in those days and they were perhaps stronger at least in comparison to *ne* alone. The discussion below will focus on the co-existence of weaker and stronger forms of negation and see how it relates to the cyclical shift of negative forms in the history of English. Even if one tries to find the ultimate trigger or the cause of the shift of negative constructions, it is impossible to avoid the variationist framework. An immediate possible question to Wallage would, for example, be why stage one *ne* disappears if it preserves the full negative force—negative constructions with *ne* alone were attested to a noticeable extent in late Middle English, where *ne ... not* was no longer a common form of negation (Iyeiri 2001: 23-31).[11] It is more difficult to explain than the depletion of stage two *ne*. He states that there is a competition in Middle English between stage one *ne* and stage two *ne* (see Wallage 2012: 733). This equals a variationist perspective after all. I will make full use of the framework of variation in the discussion below, which I believe will help clarify the process of the cycle.

3. Data

For the purpose of discussing the Modern English part of Jespersen's Cycle, I will investigate two corpora, both providing material from the crucial period in terms of the historical development of *do* in negation: (1) the data from 1600 to 1749 of the Archer Corpus (A Representative Corpus of Historical English Registers) (ver. 3.2), which consists of British English only (605,262 words); and (2) the entirety of the Lampeter Corpus of Early Modern English Tracts (1640-1740), which again consists of British English (1,193,385 words).[12]

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[11] See also Note 4.

[12] For further details of these corpora, see <http://www.alc.manchester.ac.uk/linguistics-and-

I am aware of a possible disadvantage in this methodology: the data does not cover the earliest period of the development of periphrastic *do*. As mentioned above, however, the ultimate origin of *do*, which itself would require a lengthy discussion, is beyond the scope of this paper. It is a separate major issue treated by a large number of previous studies. The present paper begins with the stage where the use of *do* is attested to a reasonable extent as in the two selected corpora. An advantage in their use is that they provide material beyond 1700. Although the famous graph by Ellegård (1953: 162) suggests the probable establishment of periphrastic *do* around 1700, sentences without *do* existed to some noticeable extent in the eighteenth century or even later. The use of the Archer Corpus and the Lampeter Corpus will provide a chance to investigate the use of *V not* vs. *do not V* beyond 1700.

As for Archer, I will follow the standard division of the periods 1600-1649, 1650-1699, and 1700-1749 in the analysis below. The Lampeter Corpus, on the other hand, provides data for the period from 1640 to 1740, and in the following analysis I will divide its data into the periods 1640-1689 and 1690-1740. Although this chronological framework of Lampeter does not exactly match that of Archer, the two corpora together will provide a good view as to the overall development of periphrastic *do* in the Early Modern English period. This organization of the Lampeter data is more practical than the division into 1640-1649, 1650-1699, and 1700-1740, which seems to match better with the Archer Corpus but which provides too few relevant examples for the first period (1640-1649), leading to an imbalance of the three periods and devaluing the comparison of different periods within the same corpus. Hence, the discussion below is based on: the Archer Corpus (1600-1649, 1650-1699, 1700-1749); and the Lampeter Corpus (1650-1699, 1700-1740). Unless otherwise stated, citations in this paper are from these sources.

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english-language/research/projects/archer/> and <http://www.helsinki.fi/varieng/CoRD/corpora/LC/> respectively. While the later part of the Archer Corpus includes American English, the period from 1600 to 1749 consists of British English only.

4. The overall development of periphrastic *do* in negation

As stated in the Introduction, I intend in this paper to shed light on the shift from *V not* to *do not V* from the perspective of Jespersen's Cycle. Although the process of the expansion of periphrastic *do* is not the central concern of this paper, it is necessary to confirm first that the data of the present study follows the common path of the development of *do* in Early Modern English, and for this purpose this section deals with the overall increase of *do not V* in the two corpora under investigation.

As expected, examples of *V not* and *do not V* are attested in reasonable mixture both in Archer and Lampeter, as in:

(1) In good turns he loves *not* to owe more than he must; ... (1608hall_p1b, Archer)
(2) But I *do not* complain, I am pleased; ... (RELB1721, Lampeter)
(3) Pray, Sir, *don't* Practise 'till you have Experience? (SCIB1722, Lampeter)

(1) illustrates *V not*, (2) *do not V*, and (3) *don't V*. Figure 1 shows the proportions of the three forms of negation in the three periods of the Archer Corpus. All lexical verbs (i.e. verbs other than the modal verbs, *have* in the auxiliary use and *be*) are counted except *have* in the lexical use, which often occurs without *do* even today especially in British English, and *need* and *dare* in the lexical use, which in Early Modern English often display mixed features between modal and lexical verbs:[13]

[13] *Ought* is another verb which presents mixed features between modal and lexical verbs in the history of English. The data under scrutiny, however, does not yield any examples of the lexical use of this verb. Hence, it is automatically excluded from the analysis.

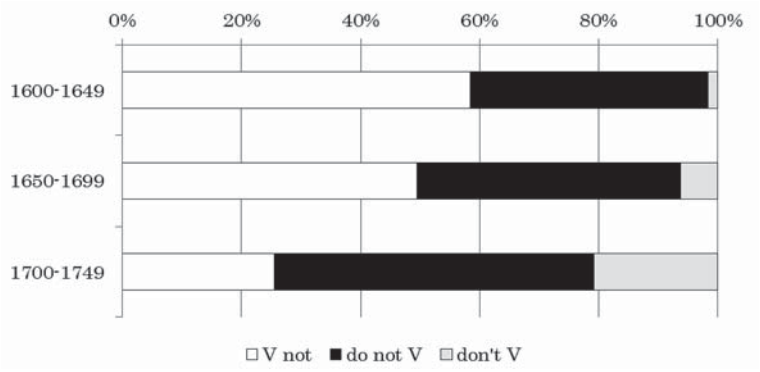

Figure 1. Three forms of negation in 1600-1649, 1650-1699, and 1700-1749 of the Archer Corpus (%)[14]

The trend as shown in this graph is largely in accordance with what previous studies demonstrate. The use of periphrastic *do* in negation (whether or not contracted) shows a steady increase from the seventeenth century, but the older forms without *do* are still attested even in the first half of the eighteenth century. Previous studies note the use of *V not* well into the eighteenth century or even later (cf. Visser 1963-1973, III-2: § 1441; Rydén 1979: 31; Tieken 1985, 1987, 1989, among many others).[15] Although Ellegård's graph gives the impression that the establishment of *do* was more or less reached around 1700, this needs some reservations. A closer look at his graph reveals that in some syntactic environments such as negative imperatives, the use of *do* has not yet reached full establishment even around 1700. Also, as Nurmi (1999: 145) points out, his graph excludes some verbs which tend to be slow in adopting the use of *do*, exaggerating as a result the quick establishment of *do*.

It has indeed been pointed out that some verbs are slower than others in adopting

[14] See also the following for the raw frequencies:

	V not		*do not V*		*don't V*		Totals
1600-1649	108	(58.4%)	74	(40.0%)	3	(1.6%)	185
1650-1699	246	(49.5%)	220	(44.3%)	31	(6.2%)	497
1700-1749	92	(25.6%)	193	(53.6%)	75	(20.8%)	360

[15] This is to a large extent a matter of genres as well. Nakamura (1997) delves into numerous personal diaries and letters in the Modern English period and demonstrates that the regulation of periphrastic *do* in negative declarative sentences takes place relatively early in them, namely in the second half of the seventeenth century.

the newly-arising construction with periphrastic *do*. The verbs excluded by Ellegård for this reason are *know*, *boot*, *trow*, *care*, *doubt*, *mistake*, *fear*, *skill*, and *list* (see Ellegård 1953: 199), while Söderlind (1951: 215-216) gives a list of *believe*, *care*, *change*, *deny*, *derive*, *desire*, *die*, *do*, *fear*, *give*, *go*, *insist*, *leave*, *mistake*, *perform*, *plead*, *pretend*, *proceed*, *prove*, *stand*, *stay*, *suffer*, and *value* as verbs occurring without *do* in his analysis of Dryden's English.[16] Considering the impossibility of making complete the list of these verbs, it is perhaps practical to exclude those which are clearly slow in adopting *do* and frequent enough to deform the overall tendency when included. As far as the data investigated in this study is concerned, the verbs which should be excluded from analysis for these reasons are *know* and *doubt* as well as *have*, *need*, and *dare*. *Know* and *doubt* display a clear tendency to stay with *V not* longer than other verbs, as the following examples illustrate:[17]

(4) The Cook has been making his Game I *know not* how long.

(1731cibb_d3b, Archer)

(5) But I *doubt not* it is somewhat else than final impenitency and infidelity; ...

(1684howe_h2b, Archer)

The Archer Corpus provides 58 relevant examples of *know* in the period 1700-1749, of which only 30 (51.7%) illustrate the use of *do*. Likewise, the same corpus yields eighteen relevant examples of *doubt* in the period 1700-1749, of which only seven (38.9%) occur

[16] Concerning different behaviours of different verbs, Nakamura has published a series of detailed studies. Nakamura (1997), for example, provides, in the appendix, a list of verbs grouped according to their tendencies to employ *do*.

[17] The tendency for *know* and *doubt* to stay without *do* longer than other verbs seems to be fairly stable irrespective of the data concerned. Nakamura (1997) investigates a large number of diary and letter texts from around 1600 to 1900 and remarks that *know* and *doubt* have a clear "predilection for the simple negative [without *do*]" in both text genres. According to him, verbs slower in adopting *do* than other verbs in diaries are *care*, *come*, *doubt*, *know*, *love*, and *stay*, while those in letters are *doubt*, *know*, *mistake*, *need*, *question* (= 'doubt'), and *value*.

with *do*. When compared with the overall tendency as displayed in Figure 1, these two verbs are clearly slower in adopting periphrastic *do* in negation. They are, therefore, excluded from the analysis hereafter. This is the first modification I will make to the data of Figure 1.

Secondly, I will combine the sample of *do not V* and *don't V* in the remainder of this paper, partly because this policy will not affect the framework I present in relation to Jespersen's Cycle and also, more importantly, because contraction can to a large extent be a matter of writing in the end. Jespersen (1917: 117) states that *n't* appears in writing around 1660, but this can fairly easily be antedated, as Figure 1 shows—there are already some examples of *n't* forms in the period 1600-1649. Furthermore, Jespersen claims that contracted forms of *not* were perhaps existent in speech around 1600, and even this is refuted in an antedating way by Rissanen (1994), who considers that the contraction of *do* and *not* occurs much earlier than it appears in the spelling forms, "perhaps as early as the sixteenth century—or even earlier" (p. 346).[18] It is therefore uncertain whether one can trust the written evidence of contracted *n't* in the period under investigation. The data of the present study may not necessarily be suitable for a separate analysis between *do not V* and *don't V*. Considering the aim of the present study, it will be a practical choice to combine them in discussion. Hence, the form *do not V*, which encompasses *doth not V*, *do(e)s not V* and *did not V* as mentioned above, hereafter also includes the contracted forms *don't V* and *dont V*—these are the sole forms of contraction attested in the corpora of this study. To avoid confusion I will use the forms *V* NOT (for forms without *do*) and DO NOT *V* (for forms with *do* whether or not contracted) in the remainder of this paper.

The graph below displays the overall trend of negative constructions in the three periods of the Archer Corpus with these alterations incorporated:

[18] For some statistical data of negative contraction in Early Modern English, see also Brainerd (1989).

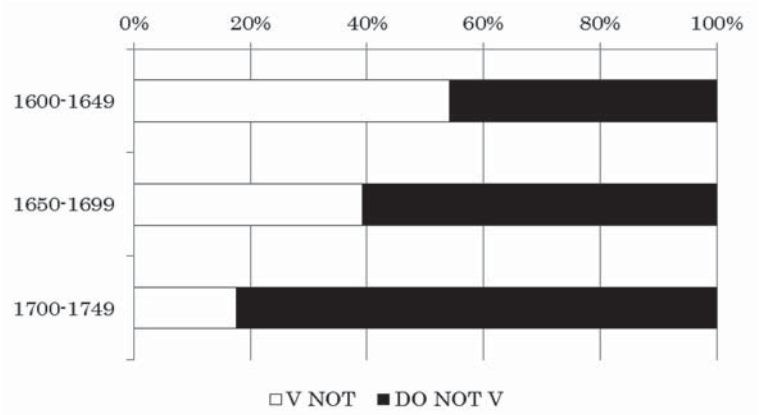

Figure 2. Three forms of negation in 1600-1649, 1650-1699, and 1700-1749 of the Archer Corpus with *know* and *doubt* as well as *have*, *need*, and *dare* excluded (%)[19]

The general tendency is the same as in Figure 1, but due to the elimination of *know* and *doubt* from the statistics, this graph shows larger proportions of periphrastic *do* for each period. Still, it shows that the use of periphrastic *do* is far from being established throughout the seventeenth century, and even in the first half of the eighteenth century, negative constructions without *do* amount to nearly 20%. This corroborates the contention in previous studies that the development of periphrastic *do* is still in progress in the eighteenth century.

A similar tendency is observed in the Lampeter Corpus. See Figure 3, which demonstrates the proportions of *V NOT* and *DO NOT V* in the periods 1640-1689 and 1690-1739 of the corpus. Here again, negative clauses with lexical verbs with *not* are all counted with the exception of *know*, *doubt*, *have*, *need*, and *dare*:

[19] See also the following table for the raw frequencies:

	V NOT	*DO NOT V*	Totals
1600-1649	84 (54.2%)	71 (45.8%)	155
1650-1699	148 (39.3%)	229 (60.7%)	377
1700-1749	49 (17.5%)	231 (82.5%)	280

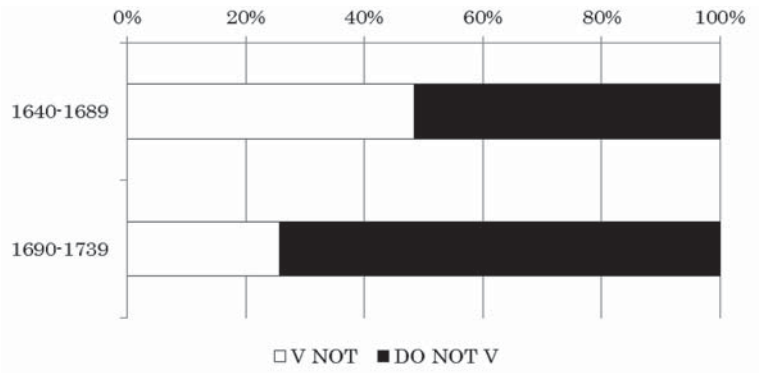

Figure 3. Forms of negation in 1640-1689, 1690-1739 of the Lampeter Corpus with *know* and *doubt* as well as *have*, *need*, and *dare* excluded (%)[20]

The tendency revealed in this graph is largely in keeping with that of the Archer Corpus, although detailed ratios of *V NOT* and *DO NOT V* differ between the two corpora. Both forms of negation are in good competition in the period 1640-1689, while the dominance of the use of *do* is explicit in the eighteenth century. Still, the form *V NOT* amounts to around 25% even in the period 1690-1739. Hence, both corpora demonstrate that the establishment of periphrastic *do* in negation has not reached completion in the first half of the eighteenth century. In view of the consistency between the two datasets, it is safe to base the discussion on them in the following sections.

5. Weaker and stronger forms of negation

While Jespersen's Cycle is still disputed, mainly in respect of the ordering of the weakening and the strengthening of negation, most models are, at least in my view, rather schematic, exaggerating the differences between different theories—in fact, the idea of the present study is mainly to substantiate them by the supply of data. It is perhaps true to say that *ne* was further weakened after the introduction of *ne ... not* and

[20] See also the table below for the raw frequencies:

	V NOT	*DO NOT V*	Totals
1640-1689	374 (48.4%)	398 (51.6%)	772
1690-1739	179 (25.6%)	519 (74.4%)	698

the subsequent grammaticalization of *not*, which eventually affected the entire system of negation in English. At the same time, it is quite possible that the use of *ne* alone was relatively weak (or at least weaker than other forms of negation) from Old English onwards, as suggested in some previous studies. I have argued above that the whole process of the cycle has to be viewed within the context where various negative forms including *ne* alone, *ne* + *never*, *ne* + *never* + *no* were available even in Old English, even if one discusses only *ne* and *not* within the framework of Jespersen's Cycle. It is probable that *ne* was relatively weak in the environment, whereas *ne* + *never*, *ne* + *no*, etc., stronger forms of negation, were also existent. Furthermore, Old English *ne*, though weaker than other forms, did not lead to the immediate introduction of *ne* ... *not*, suggesting that the weakness of *ne* is not the sole factor leading to the occurrence of *ne* ... *not*.[21] In other words, weak (or weaker) forms do not necessarily have to be strengthened. They can stand as they are quite stably in language. The key to the system of negation is perhaps the co-existence of weaker and stronger forms of negation, and the cycle is probably a way to keep this balance. It is within this context that the expansion of periphrastic *do*, or the Modern English part of Jespersen's Cycle, should be envisaged. I do not intend to claim that this view is a dramatic alternative to other arguments on Jespersen's Cycle, since I am well aware that the difference between this and other previous studies will also be slight. Here I use the terms "weak(er) negation" and "strong(er) negation" only in relative terms: some forms of negation are weaker or stronger only in relative terms in comparison to other forms of negation in the same language.[22]

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[21] The loss of *na* in Old English may be relevant to the introduction of *ne* ... *not* in Middle English (cf. van Kemenade 2000: 68), but the relatively restricted frequency of *na*, at least in comparison to Middle English *not*, suggests that this is not the sole cause for the introduction of *ne* ... *not*, either.

[22] Although this definition may sound a little too loose, this is a characteristic feature of almost all previous studies on Jespersen's Cycle and perhaps insurmountable because of the nature of the concepts of weakness and strength. See, for example, the following comment by Schwenter (2006: 330): "To the best of my knowledge ... the notion of emphasis associated with post-verbal

Indeed, a number of scholars have noted the existence (or co-existence) of weaker negation and stronger negation in language in general. Kiparsky and Condoravdi (2006), for example, quite explicitly state that the whole process of the cycle of negation is to keep the contrast between plain (in their words) and strong negation.[23] Like other scholars, they assume that stronger negation—presupposing that some negative forms are stronger—becomes weaker once its frequency rises and this incites the introduction of another form of negation, which is stronger.

My view is similar to studies of this kind, in that the driving force of Jespersen's Cycle is to keep the balance between weaker and stronger forms of negation. Unlike Kiparsky and Condoravdi (2006), however, I would consider that the essence behind Jespersen's Cycle may not necessarily be the continual strengthening of negation, especially when viewed from the entire history of English negation including the introduction of periphrastic *do*. I do admit that the frequent use of stronger negation leads to the loss of strength, making stronger forms into weaker (or plain) ones, and this may indeed have led to the introduction of *do*. A number of scholars have associated periphrastic *do* at its earlier stages with emphasis (cf. Rissanen 1999: 246 among others). I do not necessarily refute this view when it comes to the very early stage of the introduction of *do*.[24] As far as the period explored in this paper is concerned, however, I feel that the newly arising form with *do* could eventually be a weaker form, filling the "gap" generated by the demise of *ne* alone.

If this assumption is correct, the linguistic environments where negation with *do* is favoured in Early Modern English may correspond to the environments where the form *ne* alone was commonly attested in later Middle English. Fortunately, there are a

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elements in the Cycle [= Jespersen's Cycle] ... has never been defined in explicit terms".

[23] While some scholars prefer to use the term "plain negation" instead of "weak(er) negation", the idea is essentially the same, since the weakness and strength of negation can only be defined in relative terms as mentioned above. See Note 22.

[24] As mentioned above, the present paper does not discuss the origin of periphrastic *do*, for which there are a number of possible factors other than the weakness or strength of negation. This would require a lengthy discussion.

number of previous studies discussing various linguistic conditions relevant to the choice of negative forms in Middle English. Environments where *ne* alone tends to be frequent in Middle English include, for example, interrogative sentences, conditional clauses, both of which are non-assertive, and various subordinate clauses introduced by the conjunction *that*, whereas those in favour of stronger forms of negation such as *ne ... not* and *not* include imperative sentences (cf. Kent 1890; Baghdikian 1979; Jack 1978a, 1978c: Fischer 1992: 280-285; Iyeiri 2001: 69-125).

Moreover, it has been noted that there is a remarkable continuity between Middle English and eighteenth-century English, suggesting that *DO NOT V* assumed the function of weaker negation after the loss of the negative adverb *ne*. Iyeiri (2004) studies some eighteenth-century texts and shows that conditional clauses as well as interrogative sentences tend to present *DO NOT V* more frequently than imperative sentences, which tend to stay with the older form *V NOT* longer, at least in comparison to other linguistic environments. Fuami (1991) also investigates negation in some eighteenth-century literary works and states that *V NOT* was a stronger form of negation than *DO NOT V*, although her arguments are not based on different syntactic environments but on the literary context where they occur.

Discussing the historical development of *do* in relation to different syntactic environments is not new. Interrogative clauses, for example, are known to have led the spread of *do*, while other environments like negative imperatives and declaratives are much slower in adopting the use of *do* (cf. Ellegård 1953: 162; Mustanoja 1960: 607; Rissanen 1999: 245-258). These discussions have, however, not necessarily been linked to the weakness or strength of negation, let alone to Jespersen's Cycle or the historical development of the entire system of negation in English, whereas in my view the concept of weakness and strength of negation is of special importance within the framework of the historical development of English negation. The discussion in the following sections will further this issue in detail.

6. *V NOT* and *DO NOT V* in different syntactic environments

In the present section, I will discuss some linguistic conditions related to the choice of *V NOT* and *DO NOT V*, for the purpose of exploring the continuity (or discontinuity) between Middle and Early Modern English, by using Archer and Lampeter. The first to investigate are interrogative and conditional clauses, both of which are non-assertive and considered to be favourable for relatively weak negative forms such as *ne* alone in Middle English, and imperative sentences, which are considered to occur with relatively strong forms of negation such as *ne ... not* and *not* in Middle English. As mentioned in the previous section, various subordinate clauses introduced by *that* also tend to show *ne* alone in Middle English. Since this is a huge category of a concoctive nature, I will leave aside this condition for the moment and concentrate on interrogative, conditional, and imperative clauses in this section. The relationship between main and subordinate clauses will be discussed in the next section, where I will deal with further details of the three syntactic conditions investigated in the present section. Some illustrative examples of interrogative, conditional, and imperative sentences are cited from the corpora under analysis:

(6) And *did* they *not* lend it the King? (ECA1676, Lampeter)
(7) for if we *do not* know what God is, how can we make an Embleme of him?
(1666cav2_f2b, Archer)
(8) O *sell not* the true Religion upon any termes. (RELA1642, Lampeter)

As for interrogative sentences as exemplified by (6), I will deal with only those examples which have an interrogative construction, i.e. either those introduced by an interrogative or those with inversion. Examples of declarative forms are excluded from analysis even if they are used for asking a question.

Regarding conditional clauses as in (7), examples are typically introduced by the

conjunction *if*, while those with an inverted word order as in (9) are also counted as a relevant example if they are likewise conditional:[25]

(9) Such a way of arguing appears to me so trifling and ludicrous, or rather so prophane, that I should think it so intended, *did* I *not* know the Author, who, I verily believe, was far from any such design. (RELB1721, Lampeter)

Moreover, the discussion here is confined to conditional clauses, so that those introduced by *as if* are excluded from analysis, though they are likewise hypothetical.

As for the category of imperative sentences, examples of *let* are included for the moment, as they are known to have ocurred with periphrastic *do* even in the *let us* construction in the history of English. As Denison (1998: 253-254) notes, forms like *don't let's V* and *let's don't V* are possible forms in Modern English. Visser (1963-1973, III-2: § 1448) provides a notable number of examples of the combination of *do* and *let*. Considering the fact that the same verb occurs without *do* in *let us not* (and *let's not*) in today's English, however, it would also be a matter of interest to exclude the examples of *let* from the analysis of imperatives.[26] This will be explored later in the next section.

On the other hand, examples with *be* in the imperative, as in the following, are excluded from analysis:

(10) *do not be* frighten'd (1675wych_d2b, Archer)

It is an overarching principle of this paper to investigate lexical verbs only. This practice is followed throughout, and for this reason the imperative with *be* is eliminated from the

[25] Conditional clauses of this type occur only marginally with lexical verbs. This is essentially a phenomenon of *be* and *have*, which are outside the scope of this paper: *Had not the Starres given me tongue and judgement, I had been silent* (SCIA1644, Lampeter).

[26] See also Quirk, et al. (1985: 830), who discuss *Let's don't forget* in contemporary English.

analysis below.[27]

The graph below displays the proportions of *DO NOT V* to the totals of *V NOT* and *DO NOT V* in the above-mentioned syntactic conditions in the Archer Corpus:

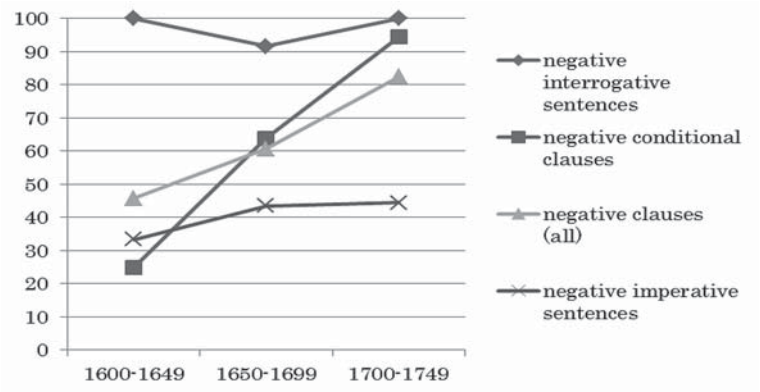

Figure 4. Proportions of *DO NOT V* in negative interrogative sentences, negative conditional clauses, and imperative sentences in the Archer Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

Several things are clear in Figure 4. First of all, negative interrogative sentences and conditional clauses, both being non-assertive and associated with a relatively weak negative force such as *ne* alone in Middle English, display a quick spread of *DO NOT V* in this graph. Secondly, Figure 4 shows that the expansion of the use of *do* is much slower in negative imperative sentences, where negative force is supposed to be relatively strong as discussed above. Thus, the overall data of the Archer Corpus confirms the assumption that the use of *DO NOT V* was likely to be encouraged in syntactic environments where the force of negation was relatively weak in the period at issue.

One notices, however, that there is a marked difference in tendency between negative interrogative sentences and conditional clauses, although both are clearly linked to *DO NOT V*: in the former the use of *do* is more or less established throughout the

[27] Since comparative and contrastive analyses are performed on interrogative, conditional, and imperative sentences, it would not be wise to include *be*, which does not occur with *do* in interrogative or conditional clauses. Hence, the exclusion of *be* from the analysis throughout this paper.

seventeenth century, whereas in the latter the use of *do* is not at all common in the first half of the seventeenth century but quickly gains ground in the latter half of the same century. This may simply be a matter of different timing in the development of *do* in the two different environments, which happens to manifest itself in the target period. At the same time, it is possible that an additional factor is functional on top of the relative weakness of negation in respect of the exceptionally frequent occurrence of *DO NOT V* in interrogative sentences. This issue will be discussed later.

Before embarking on further detailed analyses, I will present the result of the same analysis using the Lampeter Corpus. See Figure 5, which exhibits the proportions of *DO NOT V* to the totals of *V NOT* and *DO NOT V* in negative interrogative sentences, conditional clauses, and imperative sentences in Lampeter:

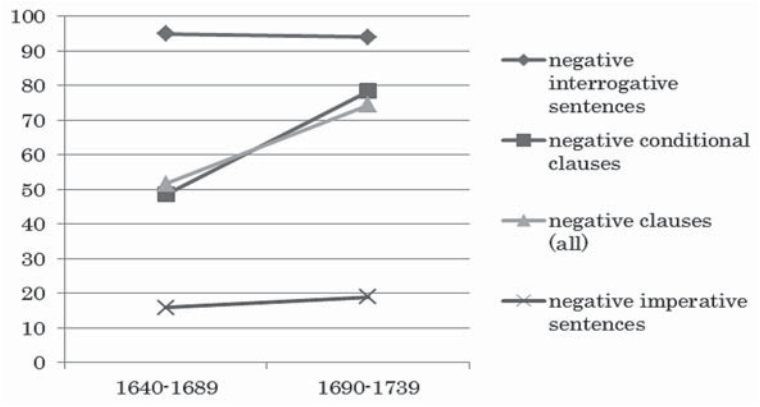

Figure 5. Proportions of *DO NOT V* in negative interrogative sentences, negative conditional clauses, and imperative sentences in the Lampeter Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

The tendency of the selected syntactic conditions as displayed in Figure 5 is remarkably consistent with the trend of Archer as revealed in Figure 4, although the detailed ratios of *DO NOT V* differ between the two datasets. On the whole, *DO NOT V* occurs much more frequently in interrogative sentences and conditional clauses, where the force of negation is supposed to be relatively weak, than in imperative sentences, which are associated with stronger negation. Further details are also similar between the two corpora. For example, negative interrogative sentences take an exceptional position in

both corpora, in that *DO NOT V* is more or less established throughout the whole period. The tendency for negative conditional clauses to use *DO NOT V* is clearly visible, but only from the second half of the seventeenth century, and this applies to Lampeter as well as to Archer. In addition, negative imperative sentences always stay behind in the spread of periphrastic *do* both in Archer and Lampeter, and the gap between negative imperative sentences and the average of negative clauses in general widens as time passes. This tendency is again observed both in Archer and Lampeter.

7. Further discussion on different syntactic environments

7.1. *DO NOT V* in main and subordinate clauses

As described in the preceding section, environments of weaker negation, where the use of *ne* alone is typically attested in Middle English, have a fairly clear tendency to use *DO NOT V* in Early Modern English, whereas those of stronger negation, where *ne ... not* and *not* are favoured in Middle English, are likely to stay longer with *V NOT* in Modern English. This corroborates the inference that the cycle of negative forms in the history of English is a machinery to keep a balance between weaker and stronger forms of negation rather than continual weakening or strengthening of negation (whichever takes place first). Still, there are several points that need further detailed analyses.

First of all, the gap between negative interrogative sentences and negative conditional clauses is so large that an additional account is necessary. Both environments are indeed non-assertive and similar in this way, but there may be an additional mechanism involved in the employment of periphrastic *do* in negative interrogative sentences, which display a markedly quick establishment of *do* as noted in a number of previous studies. And, this is most likely the matter of word order. Obviously, this is not a particularly novel inference: a number of scholars have to this day pointed out that periphrastic *do* is a convenient device to deal with the inversion in interrogative sentences (cf. Rissanen 1999: 244). As the dataset in Lampeter includes a

few examples of interrogatives without inversion, as in the following, I will eliminate them to obtain the statistics of interrogative sentences with inversion only:

(11) Who *sees not*, how it labours to subsist notwithstanding the Protection it has from it, and that so many Powerful Princes are watchful in defence of it?

(RELB1721, Lampeter)

There are a total of 85 relevant examples after the elimination of such examples, and 83 of them (97.6%) show the use of periphrastic *do*, giving an even larger proportion of *DO NOT V*. The only remaining examples of *V NOT* are:

(12) *Remember* ye *not*, saith the Apostle, That when I was yet with you I told you these things? (RELA1679, Lampeter)

(13) *Remember* ye *not* what I told you of these things when I was yet with you?

(RELA1679, Lampeter)

Since these are clearly biblical and in some way fossilized, it is safe to conclude that the use of periphrastic *do* was, under usual circumstances, more or less established in negative interrogative sentences with inverted word order in Early Modern English. This does not invalidate the hypothesis that forms with *do* belong to weaker negation, but certainly word order is simultaneously involved as an additional factor in the expanded use of *do* forms in the period under investigation.[28] Had the word order been the sole factor, the expansion of *do* could have taken place at any earlier period in the history of

[28] Hudson (1997) notes that negative interrogative sentences with transitive verbs shift to *DO NOT V* earlier than those of intransitive verbs, but this is more relevant to earlier periods than the period investigated in this study. Both in the datasets of the Archer Corpus and the Lampeter Corpus, the use of *do* is already so predominant in interrogative sentences in general that the separating of the data according to the transitivity of the verb is irrelevant. For further details on the development of *do* in interrogative sentences with transitive verbs, see also Warner (2004).

English after all. Incipient occurrences of *do* go back to the Middle or even Old English period.[29]

Another non-assertive context associated with the frequent use of periphrastic *do*, that is the negative conditional, also needs further exploration. It is true that in both the Archer Corpus and the Lampeter Corpus, negative conditional clauses are a favourable syntactic environment for the use of *DO NOT V*, but this tendency manifests itself only in the later part of the period under scrutiny. In the Archer Corpus, it is only from the second period (1650-1699) that this tendency is attested. The Lampeter Corpus also shows that the use of *do* is increasingly common in negative conditional clauses as time passes, while in the first period (1640-1689) the same tendency is not at all evident.

In view of the fairly dramatic increase in the use of *do* in negative conditional clauses in the period of the present study, I would surmise that the association between *DO NOT V* and weaker negation was gradually established in parallel with the overall expansion of the use of periphrastic *do* in Modern English. In other words, the loss of *ne* towards the end of the Middle English period may not be the direct trigger for the introduction of periphrastic *do* in negation. *DO NOT V* was simply available as a variant among various negative forms in Early Modern English—I will not discuss its origin in this paper as already mentioned—, and in the process of its increasing spread, it nicely fit into the framework of weaker and stronger negative forms and assumed the status of weaker negation. The balance between weaker and stronger negation as I argue in the present paper is applicable to this process rather than the ultimate origin of periphrastic *do*.

In my view, it is possible that the use of periphrastic *do* was, at an early stage of its development, more like a phenomenon commonly attested in main clauses, though this

[29] See Note 6. Although the origin of *do* is beyond the scope of this paper, it is appropriate to refer to Visser (1963-1973, III-2: § 1450), who highlights the illogicality of ascribing the origin of *do* to the convenience facilitated by the use of *do* in interrogative sentences, by saying that the other Germanic languages have not developed the use of *do*. It is perhaps inappropriate to consider the word order to be the sole factor for the development of *do*.

could simply be a mere tendency and nothing categorical. This conjecture will in fact be in keeping with various linguistic facts adduced to this day. First of all, it will be consistent with the fact that the use of the newly arising negative item *not* (instead of *ne*) in early Middle English was far more frequently attested in main clauses than in subordinate clauses (see Ingham 2013: 130-131).[30] Main clauses in general may be an environment to promote the rise of new constructions, and in the case of the present study the new form is *DO NOT V*. In other words, there will be an interesting parallelism between Middle and Modern English in terms of the rise of new constructions, if this inference is correct. Secondly, this assumption will be logical if the use of periphrastic *do* was colloquial in origin as often proposed in the literature (cf. Tieken 1990).[31] Since spoken language has a tendency to use less complex sentences than written English, the rise of *do* in colloquial English will be consistent with the supposition that it was more likely to occur in main clauses than in subordinate clauses at the beginning stage.[32] Finally, it will also accord well with the assumption that the use of *do* was particularly suitable for clauses with inverted word order, as in the case of interrogative sentences, from the earliest stage. A relatively early establishment of *do* is observed not only in negative interrogative sentences but also in positive interrogative sentences (cf. Ellegård 1953: 162). Inversion is a phenomenon typically observed in main clauses.

To further this issue, I would like to investigate the difference between main and

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[30] Ingham (2013: 130-131) points this out about Middle English, suggesting a possible link between *not* and illocutionary force. He argues that main clauses convey "the speaker/writer's illocutionary act".

[31] Tieken (1990) considers that the use of periphrastic *do* was at its earliest stage perhaps a typical feature of those with an "imperfect command" (p. 24) of English, such as children and L2 speakers. She then states: "The origin of the periphrastic auxiliary must ... clearly be looked for in the spoken, everyday language" (p. 25).

[32] This is often pointed out about contemporary English. Chafe (1985: 111), for example, remarks: "the complex arrangements of clauses characteristic of written language are rarely exploited [in spoken language]". For the comparability between English in the past and today's English, see Wright (1995).

subordinate clauses in terms of the development of *DO NOT V*.[33] The graph below displays the ratios of *DO NOT V* to the totals of *V NOT* and *DO NOT V* in main and subordinate clauses in the Archer Corpus. This is to observe the increasing association between *DO NOT V* and subordinate clauses, but not from the beginning of the seventeenth century:

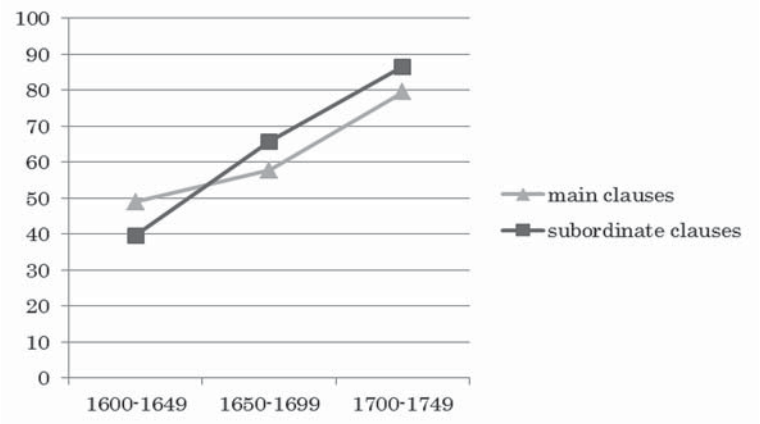

Figure 6. The ratios of *DO NOT V* to the total of relevant examples in main and subordinate clauses in the Archer Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

Although the gap between *DO NOT V* in main and subordinate clauses is not necessarily large, the overall direction as shown in Figure 6 supports the above-mentioned assumption: the use of *do* is more frequent in main clauses in the first half of the seventeenth century, whereas the trend changes from the latter half of the same century onwards. In other words, the use of periphrastic *do* was, at its earliest stage, more likely associated with main clauses. However, the nature of the environment in favour of *DO NOT V* changes once the use of *do* is much more frequent.

Further confirmation of this assumption is obtained from the analysis of the

[33] The conjunction *for* can present features of a subordinating conjunction in earlier English. See Rissanen (1989: 3), who argues that the conjunction *for* "contains, and has probably always contained, characteristics both of a coordinating and a subordinating conjunction". In the present section, however, clauses introduced by *for*, whose examples are not numerous in any case, are classified into main clauses, since it behaves like a coordinating conjunction in the data explored. See, for example: ... *for did you not observe them sometimes to make a stand, and looking at us, seem'd almost prepared to come to us?* (1675barn_f2b, Archer)

Lampeter Corpus. The expansion of periphrastic *do* in main and subordinate clauses in Lampeter is graphically presented in Figure 7:

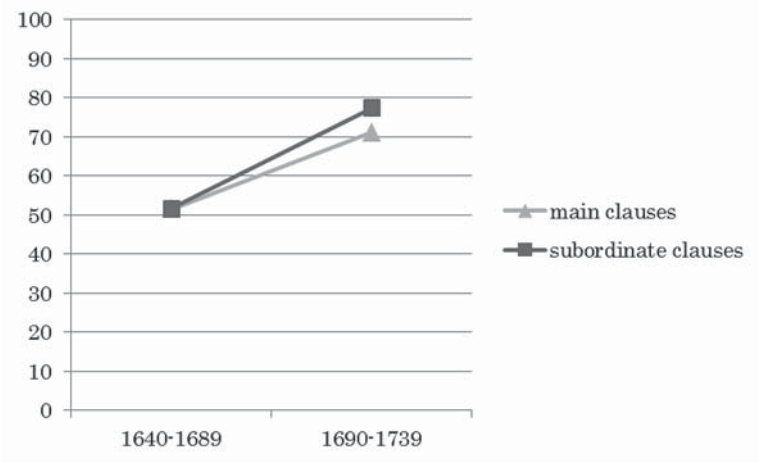

Figure 7. The ratios of DO NOT *V* to the total of relevant examples in main and subordinate clauses in the Lampeter Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

Figure 7 exhibits essentially the same tendency as in the Archer Corpus, except that the more frequent use of DO NOT *V* in main clauses is not transparent due to the later dates the Lampeter Corpus covers—it begins with 1640s, while Archer provides data for the period of 1600-1649. Still, it is true to say that the use of periphrastic *do* is not necessarily common in subordinate clauses at an early stage of its development in the Lampeter Corpus, either, while the trend changes as the use of DO NOT *V* becomes increasingly common in the course of the seventeenth to eighteenth centuries. Thus, both Archer and Lampeter lend support to my conjecture: DO NOT *V*, at its incipient stage, more typically occurred in main clauses. Its nature gradually changed as it was increasingly established in the course of the Modern English period.

7.2. DO NOT *V* in imperative sentences

Finally, I would like to make some additional comments on DO NOT *V* in negative imperative sentences. The statistics in Section 6 include all examples of negative imperative sentences with *not*, only excluding those with *be*. It is a natural temptation,

however, to exclude imperative sentences with *let*, since it still occurs without *do* in *let us not* in Present-day English. They may have skewed the data in the direction of *V* NOT. See Figure 8, which exhibits the proportions of DO NOT *V* to the total of negative imperatives with *not* of lexical verbs excluding *let* as well as *know*, *doubt*, *have*, *need*, and *dare* in the Archer Corpus:

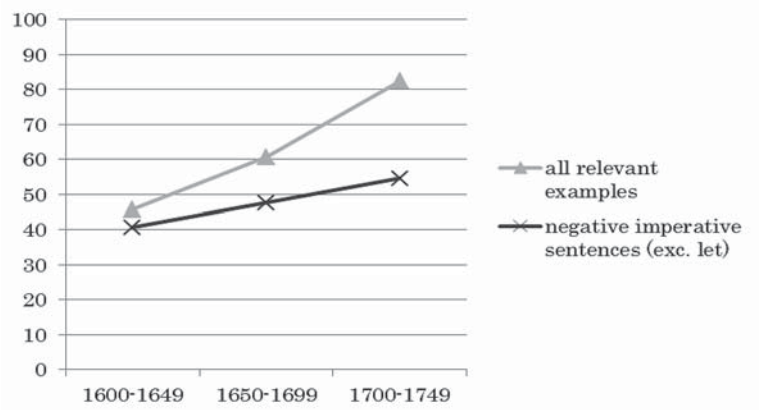

Figure 8. The ratios of DO NOT *V* to the total of imperatives with *not* of lexical verbs excluding *let* as compared with the overall trend (in all syntactic environments) in the Archer Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

While the proportions of DO NOT *V* in imperative sentences in this graph are slightly larger than in those including *let* (Figure 4 in Section 6), Figure 8 simply reconfirms that imperative sentences are much slower in adopting periphrastic *do* than the average. Also, this dataset again illuminates that the gap between the entire relevant data and negative imperative sentences widens as time passes. This suggests once again that DO NOT *V* gradually obtained the status of weaker negation and *V* NOT the status of stronger negation as time passes, keeping the balance between them until eventually the loss of *V* NOT takes place in the history of English.

Largely the same propensity is attested in the Lampeter Corpus, where there are only two subperiods involved. See Figure 9, which displays the data of imperative sentences with the exclusion of *let*:

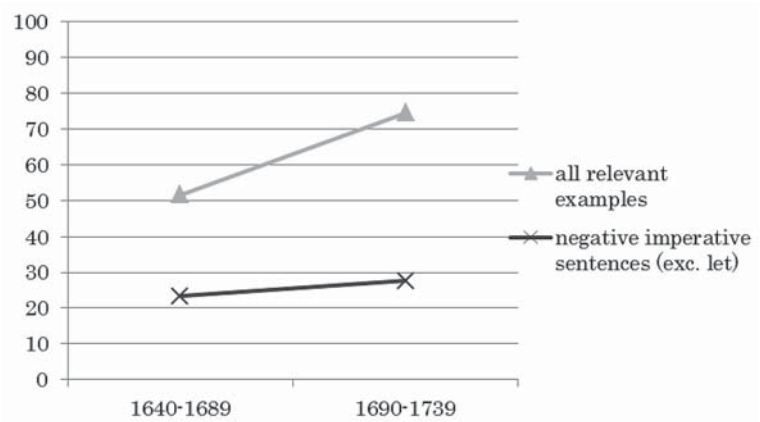

Figure 9. The ratios of DO NOT *V* to the total of imperative sentences with *not* of lexical verbs excluding *let* as compared with the overall trend (in all syntactic environments) in the Lampeter Corpus (*know* and *doubt* as well as *have*, *need*, and *dare* excluded) (%)

Despite the difference in detailed proportions between Archer and Lampeter, this graph also demonstrates that the use of *do* is always less frequent in negative imperatives than in the average trend and that the gap between the two widens as time passes. This again supports my inference on the increasing association between *V* NOT and stronger negation.

One final point to add before the conclusion is that some forms of negative imperative sentences are quite fixed with the form *V* NOT in the data under scrutiny. The verbs often involved in negative imperative sentences include *fear*, some being biblical and probably fossilized. See the following:

(14) *Fear not* Gonzagues, but remember Nevers's motto.

(1862brom_d6a, Archer Corpus)

(15) And the angel said unto them, *Fear not*; for behold, I bring you good tidings of great joy, which shall be to all people. (1789emmo_h4a, Archer Corpus)

There are eight examples of *fear* used in the negative imperative in the Archer Corpus, of which seven illustrate *V* NOT. The existence of these examples lowers the proportion of DO NOT *V* in negative imperative sentences. In view of the fact that there are 91

relevant examples of negative imperative sentences, however, the share of these examples is not necessarily large. It is, therefore, safe to state that on the whole negative imperative sentences are more likely to stay with *V* NOT than in other syntactic environments.

8. Concluding remarks

As mentioned above, previous studies of Jespersen's Cycle tend to focus on the historical shift of negative constructions from *ne* to *ne* ... *not* and then to *not* in Middle English. This is certainly the highlight of Jespersen's Cycle, and indeed for some scholars, this is the whole of the cycle. However, Jespersen's description of the historical development of English negative constructions extends to the shift from *V* NOT to DO NOT *V*, which is in my view equally interesting and which also needs to be explained within the continuous framework of the historical development of English negative sentences, whether or not one regards it as part of Jespersen's Cycle.

Quite separately from Jespersen's Cycle, the introduction of periphrastic *do* in English itself has been a well-explored issue in the literature. Previous studies tend to center on its origin or the process of its expansion or spread (sometimes called regulation) but not much on its relationship to Jespersen's Cycle or the overall development of English negative constructions in the history of English. The aim of the present study has been to fill this lacuna.

I have shown above that the use of periphrastic *do* at its earliest stage was more likely a phenomenon occurring commonly in main clauses rather than a direct replacement of *ne V*, a relatively weak form of negation in Middle English, although DO NOT *V* eventually filled the gap of weaker negation caused by the loss of *ne* alone. Previous studies tend to focus on the ordering of, or the cause and effect of weakening and strengthening of negation, whereas the data investigated in the present paper suggests that the association of some negative forms to weaker and stronger negation

becomes more and more salient only in the process of the expansion of *DO NOT V*: negative forms with *do* are increasingly common in weaker negative environments, while *V NOT* are increasingly linked to stronger negative environments.

The discussion of the present paper started with the period when the use of *do* had already emerged to some noticeable extent in negative sentences, leaving aside the question as to its origin, which is discussed in a large number of existing studies. Periphrastic *do* was perhaps a useful inversion tool particularly in interrogative sentences, where the inversion of lengthy verbs was awkward, but this should not be the sole factor related to the expansion of *do* in the earlier part of the Modern English period. Along with the spread of *do*, the change in the nature of *DO NOT V* takes place, perhaps to keep balance between weaker and stronger forms of negation, nicely fitting in the environment of weaker negation. The use of *do* itself has a very long history in English, and it was simply a useful but marginal variant until Middle English. The condition of stable variation suddenly shifted to dynamic variation, instigating the further expansion of periphrastic *do* in the Early Modern English period. The fact that the Early Modern English period was undergoing the development of various auxiliary verbs may also have been favourable for the expansion of *do*.

As argued above, Jespersen's Cycle is a mechanism to keep balance between weaker and stronger forms of negation rather than the constant weakening or strengthening of negation. Considering the fact that the use of *do* is fully established and *V NOT* has been more or less obliterated in Present-day English, a possible question would be whether English will experience further major renewal of negative forms in the near future. It is perhaps unlikely, at least, for the foreseeable length of time, partly because of the relative stability of English today—the effect of written grammar is extensive in the historical development of negation, and partly because there are other facilities with which to convey strength of negation such as *in no way* in English. The increasingly common use of *never* as a simple negative marker for the function of 'not' especially in the past tense is noted in the literature, and has indeed been discussed

within the context of Jespersen's Cycle (Cheshire 1999). These various forms of negation can be interpreted within the framework of the balance between weaker and stronger forms of negation. After all, negation involves various negative items including *no* and *never* on top of *not*. This is another point I have stressed in the present paper.

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